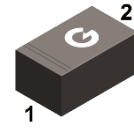


### Features

- High speed and high reliability
- RoHS compliant with Halogen-free

HF

Cathode 1 Anode 2



DFN1006-2

### Mechanical Data

- Case: DFN1006-2
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

### Ordering Information

| Part Number | Package   | Shipping Quantity       | Marking Code |
|-------------|-----------|-------------------------|--------------|
| 1SS400L     | DFN1006-2 | 10000 pcs / Tape & Reel | A            |

### Maximum Ratings (@ T<sub>A</sub> = 25°C unless otherwise specified)

| Parameter                                            | Symbol           | Value | Unit |
|------------------------------------------------------|------------------|-------|------|
| Non-Repetitive Peak Reverse Voltage                  | V <sub>RM</sub>  | 100   | V    |
| DC Blocking Voltage                                  | V <sub>R</sub>   | 100   | V    |
| Average Rectified Output Current                     | I <sub>O</sub>   | 100   | mA   |
| Forward Current                                      | I <sub>FM</sub>  | 225   | mA   |
| Peak Forward Surge Current, 1s Single Half-sine-wave | I <sub>FSM</sub> | 0.5   | A    |

### Thermal Characteristics

| Parameter                              | Symbol           | Value      | Unit |
|----------------------------------------|------------------|------------|------|
| Power Dissipation                      | P <sub>D</sub>   | 200        | mW   |
| Thermal Resistance Junction-to-Air *1  | R <sub>θJA</sub> | 162        | °C/W |
| Thermal Resistance Junction-to-Case *1 | R <sub>θJC</sub> | 85         | °C/W |
| Thermal Resistance Junction-to-Lead *1 | R <sub>θJL</sub> | 160        | °C/W |
| Operating Junction Temperature Range   | T <sub>J</sub>   | -55 ~ +150 | °C   |
| Storage Temperature Range              | T <sub>STG</sub> | -55 ~ +150 | °C   |

Note 1: The data tested by surface mounted on a 15mm \* 15mm \* 1mm FR4-epoxy P.C.B

## Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter                    | Symbol   | Test Condition                                            | Min. | Typ. | Max. | Unit          |
|------------------------------|----------|-----------------------------------------------------------|------|------|------|---------------|
| Reverse Breakdown Voltage    | $V_{BR}$ | $I_R = 100\mu\text{A}$                                    | 100  | -    | -    | V             |
| Forward Voltage              | $V_F$    | $I_F = 100\text{mA}$                                      | -    | -    | 1.2  | V             |
| Maximum Peak Reverse Current | $I_R$    | $V_R = 80\text{V}$                                        | -    | -    | 0.1  | $\mu\text{A}$ |
| Total Capacitance            | $C_J$    | $V_R = 0.5\text{V}, f = 1.0\text{MHz}$                    | -    | -    | 3    | pF            |
| Reverse Recovery Time        | $t_{rr}$ | $I_F = 10\text{mA}, V_R = 6\text{V}$<br>$R_L = 100\Omega$ | -    | -    | 4    | ns            |

## Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

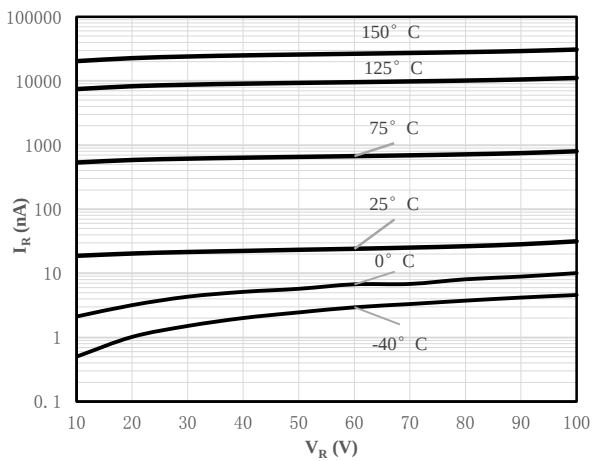


Fig 1 Typical Reverse Characteristic

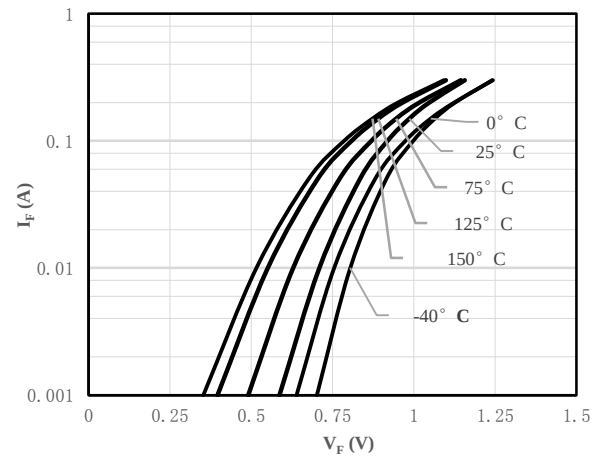


Fig 2 Typical Forward Characteristics

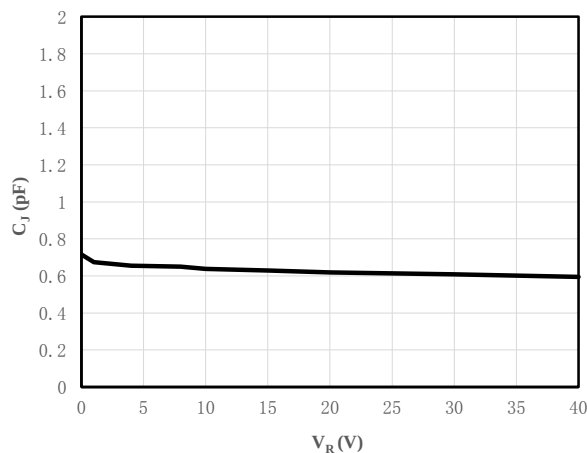
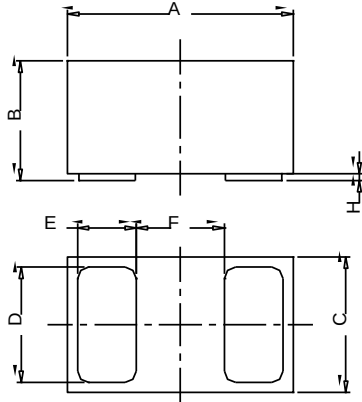


Fig 3 Capacitance vs. Reverse Voltage

**Package Outline Dimensions** (Unit: mm)



| DFN1006-2 |      |      |       |
|-----------|------|------|-------|
| Dimension | Min. | Typ. | Max.  |
| A         | 0.95 | 1.00 | 1.075 |
| B         | 0.45 | 0.50 | 0.55  |
| C         | 0.55 | 0.60 | 0.675 |
| D         | 0.45 | 0.50 | 0.55  |
| E         | 0.20 | 0.25 | 0.30  |
| F         | -    | 0.40 | -     |
| H         | 0    | 0.03 | 0.05  |

**Package Outline Dimensions** (Unit: mm)

**DFN1006-2**

